

Raising science attitudes and perceptions at Key Stage 3

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Raising science attitudes and perceptions at Key Stage 3

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Context-based learning⁽¹⁾

Real-world applications of the science curriculum.

Non-science applications of science.

Delivery by experts from different areas of science indirectly communicates diverse careers.

Practical focus^(2,3)

Hands-on and visual conceptualisation of complex concepts.

Wet chemistry workshops improve practical skills and confidence.

Team work, problem solving and presentation skills nurtured early on.



Repeat engagement

Enables project-based learning⁽⁴⁾.

Builds familiarity with facilitator for more rounded engagement.

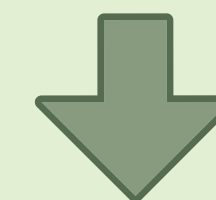
Local emphasis

Bilingual delivery.

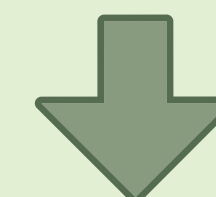
Empowerment and relatability.



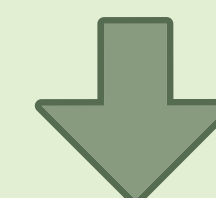
Background
Low science uptake
post-GCSE



Project aims
To increase uptake
through enhancing
attitudes and perceptions
towards science



Strategy
Deliver practical and
applied chemistry
workshops over a
3 year period



Data collection
Longitudinal study design
using questionnaires and
focus group interviews

*"I don't really know what a
science job is"*

"It's, like, out of fashion"

Next Steps...

Explore and further
validate questionnaire data
using Exploratory Factor
Analysis and Confirmatory
Factor Analysis⁽⁵⁾:

Parallel analysis of PCA
determines the number of
factors present.

Factor loadings explain
interrelationships between
latent and observed variables.

CFA applied to test set (30%
of data) allows confirmation
of the model.

Factor score coefficients
allow item weighting when
generating overall latent
variable 'scores'⁽⁶⁾.

**Build an understanding of the
relationships between science
capital, attitudes, perceptions
and demographics.**

References

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